



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/630,897
Filing Date: July 31, 2003
Appellant(s): WADDELL ET AL.

Anne M. Korbau
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/28/2011 appealing from the Office action mailed on 11/30/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 13-14, 17-19, and 21-29.

(4) Status of Amendments After Final

No amendments after final have been filed subsequent to the final rejection as mailed on 11/30/2010.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN

REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

(8) Evidence Relied Upon

Patent Number	Inventor(s)	Publication Date	Filing Date
US 6,453,477 B1	Bainbridge et al.	September 24, 2002	March 4, 2002
US 5,910,540	Takahashi	June 08, 1999	October 22, 1996
US 5,394,786	Gettle et al.	March 07, 1995	June 30, 1993

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bainbridge et al. (6,453,477) in view of Takahashi (5,910,540).

Bainbridge et al. (477) disclose a shock-attenuating assembly comprising:

- a) first and second plastic material confinement layers; 20, 30, 32, col. 4, line 57 to col. 5, line 3
- b) water impermeable; col. 4, line 57 to col. 5, line 3
- c) a plurality of pockets; 20, 30, 32 (see figs. 13, 25)
- c') stitching surrounding the pockets; 40, 62; col. 8, lines 37-43
- d) a shock wave attenuating material having the flow 22 properties of a liquid; and

- e) fireproofing, heat insulating, or intumescent material. 22; col. 10, lines 14-20
- Bainbridge et al. (477) apply as recited above. However, undisclosed is a plastic material layer that is a polyamide resin. Takahashi (540) teaches a plastic material that is a polyamide resin (col. 8, lines 53-68; col. 10, lines 25-40; and col. 12, lines 14-26). Note that Nylon is a polyamide resin material. Applicant is substituting a particular type of nylon material for another as explicitly encouraged by the primary reference (see col. 4, line 57 to col. 5, line 10 of Bainbridge et al.) in an analogous art setting with expected or predictable results (see *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007)). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Takahashi to the Bainbridge et al. shock attenuating assembly and have a shock attenuating assembly with a particular type of plastic material.
2. Claims 13-14, 17-19, 21, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bainbridge et al. (6,453,477) in view of Takahashi (5,910,540) as applied to claims 22 and 29 above, and further in view of Gettle et al. (5,394,786).

Bainbridge et al. (477) and Takahashi apply as recited above. However, undisclosed is a shock attenuating filler material that is perlite. Gettle et al. (786) teach a shock attenuating filler material that is perlite (col. 16, lines 26-33). Applicant is substituting one type of shock attenuating filler material for another in an analogous art setting with expected or predictable results (see *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007)). It would have been obvious to a person of ordinary skill in this art at the time of the invention apply the teachings of Gettle et al. to the shock attenuating assembly of

Bainbridge et al. in view of Takahashi and have a shock attenuating assembly with a different type of shock attenuating filler material.

(10) Response to Argument

1. With regard to Bainbridge et al. (6,453,477) in view of Takahashi (5,910,540), appellant's arguments are addressed as follows. It is argued that Bainbridge et al. does not disclose a shock-attenuating assembly, but rather a protective padding for sports gear. In response, Bainbridge et al. in fact disclose or teach either (see col. 2, lines 48-67; col. 10, lines 65-67; and col. 11, lines 1-21). The fact that the beads are compressed does not teach away from or prohibit Bainbridge et al. from performing this shock-attenuation function as explicitly taught by Bainbridge et al.. With regard to the claim limitation directed to "sufficiently flexible to wrap around a structure of any shape"; note that it is the flexible nature of the polypropylene material at the seams 34 (see fig. 5) in combination with the flowable nature of the beads 22 that permits Bainbridge et al. to meet this claim limitation. Note that if the beads 22 could not move or flow to some degree it would be difficult or impossible to perform the function of shock attenuation as explicitly disclosed by Bainbridge et al.. Further, just because the beads are packed together does not prohibit the beads from moving. Rather, it slightly impedes the flow of beads as one bead contacts an adjacent bead. Further, note how the Bainbridge et al. structure is shaped around items 11 and 13 in figs. 5, 7, and 8 for more explicit proof of the flexible wrapping nature of this structural material. With regard to the argument that the Bainbridge et al. device lie flat against the part of the body to be protected, this is a clearly inaccurate statement (see figs. 5, 7, 8, 9, and 14-15 for a few examples). It is further argued that if polypropylene material 20 of Bainbridge et al. were made of a different type of polymer material (nylon, a polyamide resin), the resultant

device would not be sufficiently flexible to wrap around. In response, it is not understood as to how substituting one flexible polymer material for another can make the Bainbridge et al. any more or less flexible than it already is. It is further argued that the Bainbridge et al. device is not designed to attenuate shock waves from blasts resulting from an explosive event. This argument is directed to something that is being argued but not claimed. Note that all that appellant is claiming is "a shock-attenuating assembly". There is no mention in the claim language of any explosive, explosive shock wave, or explosive event. However, it is not understood as to how a device that is designed to attenuate shock waves would not attenuate any type of shock wave regardless of the shock wave source. With regard to the issue of the shock wave attenuating material having shock attenuating characteristics; please note beads 22 and col. 9, lines 22-50. Further, note that the beads 22 can be compressible or elastic members (see col. 9, lines 45-50). With regard to the argument that the shock wave attenuating material is not perlite, pumice, vermiculite, or inorganic solid foams; appellant appears to be arguing the claim limitations of claims 13 and 23. Claims 22 and 29 do not contain the claim limitations directed to perlite, pumice, vermiculite, or inorganic solid foams. With regard to the argument that the preamble of the claim should be considered; note that the claim limitation directed to "A shock-attenuating assembly" is directed to the title and not the preamble of the claim. The claim limitations directed to the claim title are explicitly taught by Bainbridge et al. (see col. 2, lines 48-67; col. 10, lines 65-67; and col. 11, lines 1-21). With regard to *Corning Glass Works v. Sumitomo Elec.*; this argument is directed to the preamble. The "A shock-attenuating assembly" is directed to the claim title and the title is explicitly taught by Bainbridge et al. as already demonstrated above (see col. 2, lines 48-67; col. 10, lines 65-67; and col. 11, lines 1-21). With regard to what

appellant's specification states (paras. [0016], [0020], [0002] to [0005]) with regard to the shock attenuating assembly; note that features that are not claimed cannot be used to read over the applied art. With regard to issues of the flexible nature of appellant's material and the energy absorbing properties of the shock wave attenuating material; these arguments have already been addressed in the above argument responses and need not be further addressed.

2. With regard to Bainbridge et al. (6,453,477) in view of Takahashi (5,910,540) as applied to claims 22 and 29 above, and further in view of Gettle et al. (5,394,786), appellant's arguments are addressed as follows. It is once again argued that the Bainbridge et al. device is inflexible. This argument has already been addressed above. However, it is not understood as to how a plastic or polypropylene material (see col. 4, lines 64-67) with associated pockets that contain a flexible shock attenuating material (see col. 9, lines 45-50) can possibly be contrived to be inflexible in nature. With regard to appellant's argument that perlite is a shock attenuating material that would shatter upon impact; it is not understood as to how perlite acts as a shock attenuating material when used in appellant's claim limitations (see claim 13, section (d); and claim 23, section (d)) but shatters when used by the applied prior art (Gettle et al.). This seems inconsistent. With regard to the issue of the Bainbridge et al. structure being sufficiently flexible to wrap around a structure of any shape; once again note figs. 5, 7, 8, 9, and 14-15 for a few examples of the way in which Bainbridge et al. flexes or conforms to the shape of the structure it is wrapped around. With regard to the issue of a long felt need for the claim invention; while this evidence must be given weight; it does not overcome the explicit teaching to substitute one material type of flexible plastic or polymer material (see the rejection of Bainbridge et al. in view of Takahashi and the explicit motivation to combine in paragraph 9, section 1 above) for another

with expected or predictable results (see *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007)). With regard to the issue of blast protection, this feature has not been claimed in any of the claim limitations and need not be further addressed. Features that have not been claimed cannot be relied upon to read over the applied prior art. With regard to the first and second films of flexible material; see 20, 30, 32, 34; col. 4, line 57 to col. 5, line 3; and figs. 7, 13-15, and 24-25. With regard to the plurality of seems forming the pockets; see 34, 40 in figs. 13-14; and 60, 62 in figs. 24-25. With regard to the shock wave attenuating material; see 22; col. 9, lines 23-50, and figs. 12-15 and 24-25. With regard to the attenuating material being perlite; see Gettle (col. 16, lines 26-33).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Stephen M. Johnson/

Primary Examiner, Art Unit 3641

Conferees:

Michael J. Carone /mjc/

Heather Shackelford /hcs/

